# Missouri Department of Natural Resources



#### **PUBLIC NOTICE**

#### APPLICATION FOR MISSOURI STATE OPERATING PERMIT

DATE: June 30, 2006

In accordance with the state Clean Water Law, Chapter 644, RSMo, Clean Water Commission regulation 10 CSR 20-6.010, and the federal Clean Water Act, the applicants listed herein have applied for authorization to either discharge to waters of the state or to operate a no-discharge wastewater treatment facility. The proposed permits for these operations are consistent with applicable water quality standards, effluent standards and/or treatment requirements or suitable timetables to meet these requirements (see 10 CSR 20-7.015 and 7.031). All permits will be issued for a period of five years, unless noted otherwise in the Public Notice for that discharge.

On the basis of preliminary staff review and the application of applicable standards and regulations, the Missouri Department of Natural Resources, as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions. The proposed determinations are tentative pending public comment.

Persons wishing to comment on the proposed effluent limitations and/or determinations are invited to submit them in writing to the Department of Natural Resources, Southwest Regional Office, Water Pollution Unit, 2040 W. Woodland, Springfield, Missouri 65807, ATTN: Cynthia S. Davies, Regional Director. Please include the permit number in all comment letters.

Comments should be confined to the issues relating to the proposed action and permit(s) and the effect on water quality. The department may not consider as relevant comments or objections to a permit based on issues outside the authority of the Clean Water Commission, (see <u>Curdt v. Mo. Clean Water Commission</u>, 586 S.W.2d 58 Mo. App. 1979).

All comments must be postmarked by July 30, 2006 or received in our office by 5:00 p.m. on August 2, 2006. The requirement of a signed document makes it impossible to accept email comments for consideration at this time. Comments will be considered in the formulation of all final determinations regarding the applications. If response to this notice indicates significant public interest, a public meeting or hearing may be held after due notice for the purpose of receiving public comment on the proposed permit or determination. Public hearings and/or issuance of the permit will be conducted or processed according to 10 CSR 20-6.020.

Copies of all draft permits, comments, and other information including copies of applicable regulations are available for inspection and copying at the department's website, <a href="http://www.dnr.mo.gov/env/wpp/wpcp-pn.htm">http://www.dnr.mo.gov/env/wpp/wpcp-pn.htm</a> or at the Department of Natural Resources, Southwest Regional Office, Water Pollution Unit, 2040 W. Woodland, Springfield, Missouri 65807, between the hours of 8:00 a.m. and 5:00 p.m., Monday through Friday.

Public Notice Date: June 30, 2006  Permit Number: MO-0129828  Southwest Regional Office				
FACILITY NAME AND ADDRESS NAME AND ADDRESS OF OWNER				
Village of Diggins WWTF 1500 Diggins Road Diggins, MO 65636	Village of Diggins P.O. Box 77, 281 Diggins Center Street Diggins, MO 65636			
RECEIVING STREAM & LEGAL DESCRIPTION	TYPE OF DISCHARGE			
Unnamed Tributary to James River NW <sup>1</sup> / <sub>4</sub> , NE <sup>1</sup> / <sub>4</sub> , Sec. 25, T29N, R18W Webster County	Domestic, new			

This is a re-notice of the January 2, 2004 Public Notice. Add Nitrate monitoring due to the discharge going to a losing stream and add Ammonia and Temperature Monitoring due to the new regulation changes. Interim and Final limits for Oil & Grease will be added. A Whole Effluent Toxicity (WET) Test will also be added to the permit.

#### For Ammonia as N

Total Ammonia as N monitoring is included to assess if there is reasonable potential for permit limits. For discharges to Unnamed Tributary to James River, a losing stream, a class U stream, the expected Missouri State Operating Permit (MSOP) limits for Total Ammonia as N are listed below:

Season	pH & Temperature	Dates	Total Ammonia as N	
			mg/L	mg/L
	used as basis		MDL	AML
Spring	7.8 pH, 16° C	Mar 1 – May 31	6.8	3.4
Summer	7.8 pH, 28° C	Jun 1 – Aug 31	3.2	1.6
Fall	7.8 pH, 16° C	Sep 1 – Nov 30	6.8	3.4
Winter	7.8 pH, 6° C	Dec 1 – Feb 29	7.5	3.8

#### For Nitrate as N

Nitrate as N monitoring is included to assess if there is reasonable potential for permit limits. For discharges to Unnamed Tributary to James River, a losing stream, a class U stream, the expected Missouri State Operating Permit (MSOP) limits for Nitrate as N is 10 mg/L for monthly average and 20.1 mg/L for daily maximum

# STATE OF MISSOURI

# DEPARTMENT OF NATURAL RESOURCES

# MISSOURI CLEAN WATER COMMISSION



# MISSOURI STATE OPERATING PERMIT

MISSOUR	I STATE OPERATING PERMIT
In compliance with the Missouri Clean Wa Pollution Control Act (Public Law 92-500,	ter Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water 92 <sup>nd</sup> Congress) as amended.
Permit No.	MO-0129\$28
Owner: Address:	Village of Diggins P.O. Box 77, 281 Diggins Center Street, Diggins, MO 65636
Continuing Authority: Address:	Same as above
Facility Name: Facility Address:	Village of Diggins WWTF 1500 Diggins Road, Diggins, MO 65636
Legal Description: Receiving Stream: First Classified Stream and ID: USGS Basin & Sub-watershed No.:	NW <sup>1</sup> / <sub>4</sub> , NE <sup>1</sup> / <sub>4</sub> , Sec. 25, T29N, R18W, Webster County Unnamed Tributary to James River (U) James River (P) (02365) 303(d) (11010002-010001)
is authorized to discharge from the facility as set forth herein:	described herein, in accordance with the effluent limitations and monitoring requirements
FACILITY DESCRIPTION Outfall #001 - POTW - SIC #4952	
Septic tanks / recirculating sand filter / chersludge is land applied.	mical addition to facilitate phosphorus removal / tertiary filtration / ultraviolet disinfection
Design organic population equivalent is 450 Design average daily flow is 45,000 gallons Design sludge production is 10 dry tons/year	s per day.
	charges under the Missouri Clean Water Law and the National Pollutant Discharge her regulated areas. This permit may be appealed in accordance with Section 644.051.6 or
Effective Date	Doyle Childers, Director, Department of Natural Resources Executive Secretary, Clean Water Commission

Cynthia S. Davies, Regional Director, Southwest Regional Office

Expiration Date MO 780-0041 (10-93)

#### A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

PAGE NUMBER 2 of 9

PERMIT NUMBER MO-0129828

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The interim effluent limitations shall become effective upon issuance and remain in effect until **August 30, 2009**. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND	LINITEG	INTERIM EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
EFFLUENT PARAMETER(S)	UNITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfall #001						
Flow	GPD	*		*	once/month**	24 hr. total
Biochemical Oxygen Demand <sub>5</sub> ***	mg/L		15	10	once/month**	***
Total Suspended Solids***	mg/L		20	15	once/month**	****
pH – Units	SU	****		1 (****	once/month**	grab
Fecal Coliform	#/100 ml	1000		400 (Note 1)	once/month**	grab
Total Phosphorus as P	mg/L			0.5	once/month**	grab
Ammonia as N	mgD Z			*	once/month**	grab
Temperature	\\c\			*	once/month**	grab
Nitrate as N	mg/L	*		*	once/month**	grab
Oil & Grease	mg/L	*		*	once/month**	grab
MONITORING REPORTS SHALL BE SU						THERE SHALL BE

NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

Whole Effluent Toxicity (WET) Test

See Special Condition

See Special Condition

Once/permit cycle in August 2010

composite

MONITORING REPORTS SHALL BE SUBMITTED **ONCE PER PERMIT CYCLE**; THE FIRST REPORT IS DUE <u>OCTOBER 28, 2010</u>. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

#### . EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

PAGE NUMBER 3 of 9

PERMIT NUMBER MO-0129828

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective September 1, 2009 and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND	LINHTO	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
EFFLUENT PARAMETER(S)	UNITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfall #001		WEATHON	AVERAGE	AVEMAGE	TREQUERCY	1112
Flow	GPD	*		*	once/month**	24 hr. total
Biochemical Oxygen Demand <sub>5</sub> ***	mg/L		15	10	once/month**	****
Total Suspended Solids***	mg/L		20	15	once/month**	****
pH – Units	SU	****		****	once/month**	grab
Fecal Coliform	#/100 ml	1000		400 (Note 1)	once/month**	grab
Total Phosphorus as P	mg/I			0.5	once/month**	grab
Ammonia as N	mgL			*	once/month**	grab
Temperature	1/00	*		*	once/month**	grab
Nitrate as N	mgXL	*		*	once/month**	grab
Oil & Grease	mg/L	15		10	once/month**	grab
MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						

once/permit cycle 24 hr. Whole Effluent Toxicity (WET) % Survival See Special Condition in August 2010 composite

MONITORING REPORTS SHALL BE SUBMITTED ONCE PER PERMIT CYCLE: THE FIRST REPORT IS DUE OCTOBER 28, 2010. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

#### **B. STANDARD CONDITIONS**

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED Parts I, II & III STANDARD CONDITIONS DATED October 1, 1980 and August 15, 1994, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

#### EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- Monitoring requirement only.
- Reports shall be submitted by the 28<sup>th</sup> day of the month following the reporting period, e.g. Reporting period is the month \*\* of March (samples collected monthly), report due by April 28<sup>th</sup>.
- This facility is required to provide a 30-day average percent removal of at least 85%.
- \*\*\* A composite sample made up from a minimum of four grab samples collected within a 24-hour period with a minimum of two hours between each grab sample. A person may physically collect the four grab samples or a composite sampler may be set up to collect the four grab samples.
- \*\*\*\* pH is measured in pH units and is not to be averaged. The pH for all facilities except lagoons is limited to the range of 6.0-9.0 pH units.
- Note 1 Monthly average limit for Fecal Coliform is expressed as a geometric mean. Geometric mean for n samples =  $[a_1 \times a_2 \times a_3 \dots \times a_n]^{1/n}$

#### C. SPECIAL CONDITIONS

- 1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
  - (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
    - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
    - (2) controls any pollutant not limited in the permit.
  - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
  - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

- 2. All outfalls must be clearly marked in the field.
- 3. Permittee will cease discharge by connection to areawide wastewater treatment system within 90 days of notice of its availability.
- 4. Changes in Discharges of Toxic Substances

The permittee shall notify the Director as soon as it knows or has reason to believe:

- (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
  - (1) One hundred micrograms per liter (100  $\mu$ g/L);
  - (2) Two hundred micrograms per liter (200  $\mu$ g/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500  $\mu$ g/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
  - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
  - (4) The level established in Part A of the permit by the Director.
- (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.
- 5. Report as no-discharge when a discharge does not occur during the report period.

### 6. Water Quality Standards

- (a) Discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
- (b) General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
  - (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;

#### C. SPECIAL CONDITIONS (continued)

- (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
- (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
- (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life:
- (5) There shall be no significant human health hazard from incidental contact with the water;
- (6) There shall be no acute toxicity to livestock or wildlife watering;
- (7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
- (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.
- 7. Sludge and Biosolids Use For Domestic Wastewater Treatment Facilities
  - (a) Permittee shall comply with the pollutant limitations, monitoring, reporting, and other requirements in accordance with the attached permit Standard Conditions.
  - (b) If sludge is not removed by a contract hauler, permittee is authorized to land apply biosolids. Permit Standard Conditions, Part III shall apply to the land application of biosolids. Permittee shall notify the department at least 180 days prior to the planned removal of biosolids. The department may require submittal of a biosolids management plan for department review and approval as determined appropriate on a case-by-case basis.
- 8. The permittee shall submit a report semi-annually with the Discharge Monitoring Reports (on January 28 and July 28) which addresses measures taken to locate and eliminate sources of inflow and infiltration into the City's collection system.
- 9. Whole Effluent Toxicity (WET) tests shall be conducted as follows:

SUMMARY OF WET TESTING FOR THIS PERMIT					
OUTFALL	A.E.C. %	FREQUENCY	SAMPLE TYPE	MONTH	
001	100	once/permit cycle	24 hr. composite	August 2010	

- (a) Test Schedule and Follow-Up Requirements
  - (1) Perform a single-dilution test in the months and at the frequency specified above. For tests which are successfully passed, submit test results using the department's WET test report form #MO-780-1899 along with complete copies of the test reports as received from the laboratory, including copies of chain-of-custody forms within 30 calendar days of availability to the WATER PROTECTION PROGRAM, P.O. Box 176, Jefferson City, MO 65102. If the effluent passes the test, do not repeat the test until the next test period.
    - a. For discharges of stormwater, samples shall be collected within three hours from when discharge first occurs.
    - b. Samples submitted for analysis of stormwater discharges shall be collected as a grab.
    - c. For discharges of non-stormwater, samples shall be collected only when precipitation has not occurred for a period of forty-eight hours prior to sample collection. In no event shall sample collection occur simultaneously with the occurrence of precipitation.
    - d. A twenty-four hour composite sample shall be submitted for analysis of non-stormwater discharges.

#### C. SPECIAL CONDITIONS (continued)

- e. Upstream receiving water samples, where required, shall be collected upstream from any influence of the effluent where downstream flow is clearly evident.
- f. Samples submitted for analysis of upstream receiving water may be collected as either a grab or twenty-four-hour composite as appropriate to the nature of the discharge.
- g. Chemical and physical analysis of the upstream control and effluent sample shall occur immediately upon being received by the laboratory, prior to any manipulation of the effluent sample beyond preservation methods consistent with federal guidelines for WET testing that are required to stabilize the sample during shipping.
- h. Any and all chemical or physical analysis of the effluent sample performed in conjunction with the WET test shall be performed at the 100% Effluent concentration in addition to analyses performed upon any other effluent concentration.
- All chemical analyses included in the Missouri Department of Natural Resources WET test report form #MO-780-1899 shall be performed and results shall be recorded in the appropriate field of the report form.
- j. Where flow-weighted composite sample is required for analysis, the samples shall be composited at the laboratory where the test is to be performed.
- k. Where in stream testing is required downstream from the discharge, sample collection shall occur immediately below the established Zone of Initial Dilution in conjunction with or immediately following a release or discharge.
- Samples submitted for analysis of downstream receiving water may be collected as either a grab or twentyfour-hour composite as appropriate to the nature of the discharge.
- (2) All failing test results along with complete copies of the test reports as received from the laboratory, Including those tests conducted under condition (3) below, shall be reported to the WATER PROTECTION PROGRAM, P.O. Box 176, Jefferson City, MQ 65102 within 14 calendar days of the availability of the results.
- (3) If the effluent fails the test, a multiple dilution test shall be performed within 30 calendar days and biweekly thereafter, until one of the following conditions are met:
  - a. Three consecutive multiple-dilution tests pass. No further tests need to be performed until next regularly scheduled test period.
  - b. A total of three multiple-dilution tests fail.
- (4) Failure of at least three multiple-dilution tests during any period of accelerated monitoring violates the permit narrative requirement for aquatic life protection.
- (5) The permittee shall submit a CONCISE summary of all test results for the test series to the WATER PROTECTION PROGRAM, P.O. Box 176, Jefferson City, MO 65102 within 14 calendar days of the third failed test.
- (6) Additionally, the following shall apply upon failure of the third MULTIPLE DILUTION test: A toxicity identification evaluation (TIE) or toxicity reduction evaluation (TRE) is automatically triggered. The permittee shall contact THE WATER PROTECTION PROGRAM within 14 calendar days from availability of the test results to ascertain as to whether a TIE or TRE is appropriate. The permittee shall submit a plan for conducting a TIE or TRE to the WATER PROTECTION PROGRAM within 60 calendar days of the date of DNR's direction to perform either a TIE or TRE. This plan must be approved by DNR before the TIE or TRE is begun. A schedule for completing the TIE or TRE shall be established in the plan approval.
- (7) Upon DNR's approval, the TIE/TRE schedule may be modified if toxicity is intermittent during the TIE/TRE investigations. A revised WET test schedule may be established by DNR for this period.
- (8) If a previously completed TIE has clearly identified the cause of toxicity, additional TIEs will not be required as long as effluent characteristics remain essentially unchanged and the permittee is proceeding according to a DNR approved schedule to complete a TRE and reduce toxicity. Regularly scheduled WET testing as required in the permit, without the follow-up requirements, will be required during this period.
- (9) When WET test sampling is required to run over one DMR period, each DMR report shall contain a copy of the department's WET test report form that was generated during the reporting period.

#### C. SPECIAL CONDITIONS (continued)

- (10) Submit a concise summary in tabular format of all test results with the annual report.
- (b) PASS/FAIL procedure and effluent limitations:
  - (1) To pass a single-dilution test, mortality observed in the AEC test concentration shall not be significantly different (at the 95% confidence level; p = 0.05) than that observed in the upstream receiving-water control sample. Where upstream receiving water is not available mortality observed in the AEC test concentration shall not be significantly different (at the 95% confidence level; p = 0.05) than that observed in the laboratory control. The appropriate statistical tests of significance shall be consistent with the most current edition of Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms or other federal guidelines as appropriate or required.
  - (2) To pass a multiple-dilution test:
    - a. For facilities with a computed percent effluent at the edge of the zone of initial dilution, Allowable Effluent Concentration (AEC), OF 30% OR LESS THE AEC parts be less than three-tenths (0.3) of the LC<sub>50</sub> concentration for the most sensitive of the test organisms; **OR**, b. For facilities with an AEC greater than 30% the LC50 concentration must be greater than 100%; **AND**,

    - c. All effluent concentrations equal to or less than the AEC must be nontoxic. Mortality observed in all effluent concentrations equal to or less than the ABC shall not be significantly different (at the 95% confidence level; p = 0.05) than that observed in the upstream receiving-water control sample. Where upstream receiving water is not available mortality observed in the AEO test concentration shall not be significantly different (at the 95% confidence level; p = 0.05) than that observed in the laboratory control. The appropriate statistical tests of significance shall be consistent with the most current edition of Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms or other federal guidelines as appropriate or required. Failure of one multiple-dilution test may be considered an effluent limit violation.

#### (c) Test Conditions

- (1) Test Type: Acute Static non-renewal
- (2) Test species: Ceriodaphnia dubia and Pimephales promelas (fathead minnow). Organisms used in WET testing shall come from cultures reared for the purpose of conducting toxicity tests and cultured in a manner consistent with the most current USEPA guidelines. All test animals shall be cultured as described in the most current edition of Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms.
- (3) Test period: 48 hours at the "Acceptable Effluent Concentration" (AEC) specified above.
- (4) When dilutions are required, upstream receiving stream water shall be used as dilution water. If upstream water is unavailable or if mortality in the upstream water exceeds 10%, "reconstituted" water will be used as dilution water. Procedures for generating reconstituted water will be supplied by the MDNR upon request.
- (5) Single-dilution tests will be run with:
  - a. Effluent at the AEC concentration;
  - b. 100% receiving-stream water (if available), collected upstream of the outfall at a point beyond any influence of the effluent; and
  - reconstituted water.
- (6) Multiple-dilution tests will be run with:
  - 100%, 50%, 25%, 12.5%, and 6.25% effluent, unless the AEC is less than 25% effluent, in which case dilutions will be 4 times the AEC, two times the AEC, AEC, 1/2 AEC and 1/4 AEC;
  - 100% receiving-stream water (if available), collected upstream of the outfall at a point beyond any influence of the effluent: and
  - reconstituted water.
- If reconstituted-water control mortality for a test species exceeds 10%, the entire test will be rerun. (7)
- (8) If upstream control mortality exceeds 10%, the entire test will be rerun using reconstituted water as the dilutant.

#### <u>C. SPECIAL CONDITIONS</u> (continued)

#### SUMMARY OF TEST METHODOLOGY FOR WHOLE-EFFLUENT TOXICITY TESTS

Whole-effluent-toxicity test required in NPDES permits shall use the following test conditions when performing single or multiple dilution methods. Any future changes in methodology will be supplied to the permittee by the Missouri Department of Natural Resources (MDNR). Unless more stringent methods are specified by the DNR, the procedures shall be consistent with the most current edition of Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms,

Test conditions for Ceriodaphnia dubia:

Test duration: 48 h

Temperature:  $25 \pm 1$ °C Temperatures shall not deviate by more than 3°C during

the test.

Ambient laboratory illumination Light Quality:

Photoperiod: 16 h light, 8\h dark Size of test vessel: 30 mL (minimum) Volume of test solution: 15 mL (minimum) 24 h old Age of test organisms:

No. of animals/test vessel:

No. of replicates/concentration: No. of organisms/concentration 20 (minimum)

Feeding regime: None (feed prior to test) Aeration: None

Dilution water: Upstream receiving water; if no upstream flow, synthetic water modified to reflect effluent hardness.

Pass/Fail (Statistically significant Mortality when compared to Endpoint: upstream receiving water control or synthetic control if upstream

water was not available at p < 0.05) 90% or greater survival in controls

Test conditions for (Pimephales promelas):

Test acceptability criterion:

No. of organisms/concentration:

Test duration: 48 h

Temperature:  $25 \pm 1$ °C Temperatures shall not deviate by more than 3°C during

the test.

Ambient laboratory illumination Light Quality:

Photoperiod: 16 h light/8 h dark Size of test vessel: 250 mL (minimum) Volume of test solution: 200 mL (minimum) Age of test organisms: 1-14 days (all same age)

No. of animals/test vessel:

No. of replicates/concentration: 4 (minimum) single dilution method

2 (minimum) multiple dilution method 40 (minimum) single dilution method 20 (minimum) multiple dilution method

Feeding regime: None (feed prior to test)

Aeration: None, unless DO concentration falls below 4.0 mg/L; rate should

not exceed 100 bubbles/min.

Dilution water: Upstream receiving water; if no upstream flow, synthetic water modified to reflect effluent hardness.

Endpoint:

Pass/Fail (Statistically significant Mortality when compared to

upstream receiving water control or synthetic control if upstream

water was not available at p < 0.05)

Test Acceptability criterion: 90% or greater survival in controls

#### D. SCHEDULE OF COMPLIANCE

- 1. The new Oil & Grease limits will go into effect on **September 1, 2009**.
- 2. If the facility can meet the new limits, no further action is needed.
- 3. If the facility requires an upgrade the following shall occur:
  - (a) By September 1, 2007 submit a completed application for construction permit, application fee, and one copy each of an engineering report, plans and specifications prepared by a professional engineer registered in the State of Missouri to the Missouri Department of Natural Resources, 2040 West Woodland, Springfield, Missouri, 65807, for providing wastewater treatment facility improvements to comply with the final effluent limitations as list in Part A of this permit, designed in accordance with Missouri Clean Water Law Regulation 10 CSR 20 Chapter 8.
  - (b) Within fifteen (15) calendar days of receipt of any request for additional information or changes in the engineering report, plans or specifications, respond and if necessary submit engineering modifications to the department.
  - (c) Within 365 calendar days of issuance of the construction permit, construct the permitted wastewater treatment facility improvements.
  - (d) Within fifteen (15) calendar days of completion of construction of wastewater treatment facility improvements, submit a Statement of Work Completed form, signed, sealed and dated by a professional engineer registered in the State of Missouri certifying that the project has been completed substantially in accordance with the approved plans and specifications. In addition to the Statement of Work Completed, submit an application for a Missouri State Operating Permit modification complete with the appropriate modification fee to the Missouri Department of Natural Resources, 2040 West Woodland, Springfield, Missouri, 65807.

If you have questions you may contact the Missouri Department of Natural Resources, Southwest Regional Office by calling 417-891-4300 or by mail at 2040 West Woodland, Springfield, Missouri, 65807.